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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

June 29, 2016

Karin Madsen, Resident Agent  
Andalex Resources Inc.  
P.O. Box 910  
East Carbon, Utah 84520-0910

Subject: 2015 Annual Report Review Completion, Centennial Mine, C/007/0019, Task ID #5105

Dear Mr. Madsen:

The Division staff has completed the review of the 2015 Annual Report. Enclosed is a copy of the review with each reviewer's comments.

Thank you for your diligence in completing the Annual Report. If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock  
Coal Program Manager

DRH/sqs  
Enclosure  
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# Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

## GENERAL INFORMATION

Company Name	Andalex Resources INC	Mine Name	Centennial Mine
Permit Number	C/007/0019	Permit expiration Date	2-4-17
Operator Name	Andalex Resources, INC	Phone Number	+1 (435) 888-4000
Mailing Address	PO Box 910	Email	kmadsen@coalsource.com
City	East Carbon		
State	UT	Zip Code	84520

## DOGM File Location or Annual Report Location

Excess Spoil Piles

- ☐ Required  
☒ Not Required

Refuse Piles

- ☐ Required  
☒ Not Required

Impoundments

- ☒ Required  
☐ Not Required

Other:

Annual pond certifications included.

## OPERATOR COMMENTS

Tower Mine was inactive during 2014

## REVIEWER COMMENTS

☐ Met Requirements ☐ Did Not meet Requirements

The annual PE required pond inspection was included in the annual report submittal and was stamped by David Hibbs, an Utah certified Professional Engineer. The three ponds at the site (B,C, and E ) were inspected 11/17 by Karin Madsen and had approximate sediment levels of 7074.9, 7046, and 6942.5 respectively. Pond E had approximately two feet of water, Pond C had about one foot of water, and Pond B had approximately one foot of water. No discharge has occurred from the ponds UPDES and no observable problems or apparent conditions that could affect the stability of the structure were documented. (CP)

## COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If additional written response is required, it should be filed as an attachment to this report.

### Title: FIRE SUPPRESSION

**Objective:** Andalex will commit to prevent, control and suppress range forest and coal fires within the permit area.

**Frequency:** To the extent possible

**Status:** Ongoing

**Reports:** Report if range fires have occurred on the permit area during the year.

**Citation:** Volume 1, Chapter 3, page 3-10, paragraph 5

Operator Comments

No range fires occurred on the permit area during 2015.

Reviewer Comments ☐ Met Requirements ☐ Did Not Meet Requirements

### Title: SUBSIDENCE MONITORING

**Objective:** Determine subsidence effects from mining.

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Provide annual subsidence monitoring data **and MAP** and report of impacts in annual report.

**Citation:** Volume 1, Chapter 5, Page 5-150a, 5-151.

Operator Comments

Subsidence information is included.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements



The Permittee included a subsidence summary table within the annual report. The subsidence table includes information from 2007 to 2015. The subsidence since 2013 ranged from 0.06 ft to an upheaval of 0.06 ft. The overall range of subsidence since 2007 ranged from 0.1 ft to an upheaval of 0.22 ft with an average of 0.01 ft. The variance in the range of subsidence observed can be attributed to the margin of error for the equipment and method used to conduct the subsidence survey. The Permittee has addressed the requirements of this commitment. (CP)

#### **Title: GAS VENT HOLE STATUS UPDATE**

**Objective:** To keep the Division apprised of the status of all wells drilled above the Aberdeen mine including any future venting of existing wells and / or development of non GVH pads and to ensure that reclamation of each disturbance is accomplished in a timely manner once the wells are no longer in use. "Provide a spreadsheet showing the progress of reclamation at each drill pad, indicating the date of interim or final grading; the date of seeding and mulching; stating whether the well is still producing; stating whether there is Blue Tip equipment (solar arrays, valves) still on site.

**Please comment on the status of plugging wells and removal of Blue Tip Energy equipment from these sites.**

**The landowner requested that final reclamation include construction of water bars on the road down to GVH 13. Please comment on the status of water bar construction.**

**App. X Section 341.200 states that wood fiber mulch is to be applied on top of the seed with hydroseeding equipment at the rate of 2,000 lbs/ac and anchored with a tackifier. Where work differed from this plan, please comment on the type and rate of mulch applied to each site.**

**Roads constructed to GVH 4, GVH 5A, GVH 6, GVH 8, GVH 8A, GVH 11, GVH 12, GVH 16, and GVH 17 will be reclaimed as shown on Figure 1-1. Please comment on the status of road reclamation.**

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Annual report item

**Citation:** Appendix X, page 1-2

#### Operator Comments

GVH update included. No changes in 2015. Water bar construction and all road reclamation will be completed upon final reclamation of the GVH Pads. No road reclamation was done in 2015.

Reviewer Comments ☐ Met Requirements ☒ Did Not Meet Requirements

3/22/2016, PWB. The annual report includes a summary of the reclamation status of the GVH sites. In summary: Never disturbed sites: GVH#2, #5B, #10, #10A, #11A, #12A, #13A, #14A, #15A, #16A. Active gas producing sites, contemporaneously reclaimed to reduce disturbed area: GVH #3, #7, #8A, #9, and #11. Fully reclaimed sites include GVH #1 (fenced), #5 (fenced), #12 (fenced), #14 (fenced). GVH holes #1 and #5 are in their fifth year of the bond clock. GVH #12 and #14 were reclaimed in 2014. Final reclamation is not considered complete until equipment is removed and fencing is installed at the GVH sites. There was no explanation for why equipment has not been removed from the following inactive, partially reclaimed sites: GVH #4 (some fence), #5A, #6, #7A, #8, #13 (fenced), #15 (fenced), #16 (fenced), #17 (fenced). The Permittee must inspect all sites annually to monitor vegetation and signs of overgrazing which will require removal of livestock and/or fencing.

## FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

**Title: SAGE GROUSE NEST SITE EVALUATION**

**Objective:** Prior to development of the well site, a Sage Grouse nest site evaluation will be conducted by a knowledgeable wildlife biologist. If nests are located, an alternative drill site location will be determined.

**Frequency:** Based on the need to drill additional de-gas wells.

**Status:** Required in future if new de-gas wells are proposed.

**Reports:** Send with application

**Citation:** Appendix X, Chapter 3, page 3-5, paragraph 1

**Title: RECLAMATION SUCCESS**

**Objective:** Determine reclamation success.

**Frequency:** Reclaimed areas will be qualitatively monitored monthly for the first two growing seasons following reclamation. Quantitative veg analysis will be completed in years 5, 9 and 10. In year 7, a consultation with DOGM will determine if an additional inventory might be necessary.

**Status:** Check at reclamation.

**Reports:** When monitoring commences.

**Citation:** Appendix X, Chapter 3, page 3-17.

**Title: RECLAMATION ENHANCEMENT MEASURES**

**Objective:** Andalex will consult with the Division of Wildlife Resources, at the time of final reclamation, to determine exactly what reclamation designs, planting arrangements, and artificial structures would best enhance wildlife habitat.

**Frequency:** Once

**Status:** Will be required prior to final reclamation

**Reports:** Report reclamation plans to Division for incorporation into MRP

**Citation:** Volume 1, Chapter 3, page 3-23, paragraph 1

**Title: SEALING OF WELLS**

**Objective:** Permanent closure of wells using measures required by the Division to prevent access and contamination of groundwater.

**Frequency:** When wells are no longer needed.

**Status:** Throughout mining

**Reports:** Report in Annual report the year when wells are completed.

**Citation:** Gob Gas Vent Wells: Appendix X R645-301.542.700 All other exploration and water wells: MRP - 301.529.100 301.755

**OPERATOR COMMENTS (Optional)**

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REVIEWER COMMENTS:

As stated above, the Permittee must address why the following inactive, partially reclaimed sites have not been completely reclaimed or provided the Division with an update Memorandum of Agreement with OSO claiming ownership: GVH #4 (some fence), #5A, #6, #7A, #8, #13 (fenced), #15 (fenced), #16 (fenced), #17 (fenced). (CP)

Text

## REPORTING OF OTHER TECHNICAL DATA

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

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Reviewer Comments

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# MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Mine Map	Included	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

The annual report submittal included the last 2006 Mine Production area map, which shows that the mine did not produce coal from 2009 to 2015. The mine map meets the Division's requirements to show at least five years of projected mining annually. The mine map provided within the submittal was PE stamped by Utah certified professional engineer David Hibbs (CP)

The appropriate subsidence table was provided with the annual report (CP).